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ALTERNATIVE MEASURES OF POVERTY

A Staff Study Prepared for

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EXECUTIVE SUMMARY

The Census Bureau's annual poverty statistics provide an important measure of the effectiveness of our policies to aid the low-income population. By highlighting the unmet economic needs of American families, they inform our policy choices and help set budgetary priorities.

A New Poverty Measure. Census is releasing two sets of poverty estimates for 1988 -- one calculated using the "official" poverty thresholds, and one calculated using a new set of thresholds based on a revised price index. Under our official measure, poverty is still at very high levels, especially for a period of recovery, but under the revised measure it is now approaching the levels of the 1970's.

Revised Estimates are Misleading. While the specific price index used in the new measure is reasonable, it is misleading to make this change without adjusting for other changes in consumption patterns. Our current poverty measure is based on consumption data collected in the mid-1950's, and major changes in relative prices and in spending patterns have occurred since then. In particular, housing costs have increased significantly, and child-care costs have become an important part of the low-income family's budget. If our poverty thresholds were updated to take account of these changes they would be higher rather than lower, and poverty rates would be higher as well.

Alternative Measures Result in Higher Poverty Rates. This study examines two sets of updated poverty thresholds -- one which has been adjusted only for the growth in the median family income since 1967, and one which has been updated using the original methodology, but with new data on family consumption patterns. Both of these thresholds result in higher poverty rates than the official measure.

- If poverty thresholds are adjusted for income growth alone, the 1987 poverty rate is about 16 percent -- substantially above the 13.5 percent official rate or Census' revised 12.0 percent rate.

- If poverty rates are calculated using the same method originally used, but with data on consumption patterns from the 1980's rather than from the 1950's, 24 percent of the population -- almost one person in four -- is counted as poor.

Alternative Measures Also Show Poverty Increases Since 1982. Although the poverty rate remains high under the official measure, the 1987 level is down by about 1.5 percentage points from the 1982 level. Under the Census Bureau's revised thresholds the poverty rate declines by about 1.2 percentage points over this period. Under either of the thresholds calculated for this study, however, poverty rates have actually increased since 1982.

- Adjusting poverty thresholds for changes in incomes, the poverty rate increased by almost a percentage point between 1982 and 1987.

- Under thresholds adjusted for changes in consumption patterns, the poverty rate also rose by almost one percentage point over these years.

These two alternative thresholds are only rough estimates of today's actual minimum consumption needs, although they are an improvement over thresholds adjusted for price changes alone. Nevertheless, they clearly imply that recent increases in average incomes have had little or no impact on those near the bottom of the income scale, and that the resources of low-income families are continuing to fall further behind their consumption needs.

SUMMARY TABLE. POVERTY THRESHOLDS, POVERTY RATES, AND CHANGE IN THE POVERTY RATE UNDER FOUR SETS OF POVERTY MEASURES

	Level of Threshold in 1987 (3 Persons)	Poverty Rate in 1987	Change in Poverty Rate, 1982-87
Poverty Measure:			
1. Official	$9,056	13.5	-1.5
2. Threshold Indexed by CPI-X_1	8,237	12.0	-1.2
3. Threshold Indexed by Change in Median Income	10,317	16.1	+0.8
4. Threshold Calculated Using Updated Consumption Data	14,308	24.1	+0.9

SOURCE: Calculated from the Current Population Survey.

ALTERNATIVE MEASURES OF POVERTY

The United States has an "official" definition of poverty, from which the Bureau of the Census produces annual estimates of the proportion of the population that is poor. These "official" poverty estimates determine eligibility cutoffs for certain federal programs. More broadly, they are viewed as an important measure of the effectiveness of our programs and policies to aid the low-income population, the level of unmet economic need in our society, and the characteristics of those who are most in need. This information in turn informs our policy choices and helps in setting budgetary priorities.

The official poverty definition is based on a series of poverty "thresholds," which vary according to family size and composition. If a family has a total income level below the threshold for its size and type, it is considered poor. The thresholds are adjusted every year for changes in the overall level of prices, but otherwise have remained unchanged in concept since the mid-1960's.[1] Because many families have incomes in the neighborhood of the poverty threshold, calculated poverty rates are quite sensitive to the exact level of the threshold in any given year. Even small changes in the methods used to adjust these thresholds over time, therefore, can result in fairly large changes in the proportion of the population that is counted as poor.

The Census Bureau has demonstrated this sensitivity in its new series of poverty rate estimates that it has just produced for 1988. Under the "official" poverty thresholds, 1988 poverty rates remain at a high level by historic standards,

1. Minor changes -- mostly involving reductions in the number of family types considered separately -- were introduced in 1981.

particularly for a period of economic recovery. Under the new estimates, however, which were produced using a different price index, the overall poverty rate is about one and a half percentage points lower than under the official series. This poverty rate would correspond to a total poverty population more than 2.5 million people lower than the official measure. Further, under this revised methodology poverty rates for the period since 1983 are no longer near their twenty-year peaks, but instead are now much closer to those seen in the 1970's.

Which story is the correct one -- are today's poverty rates high by historic standards, or is that a misconception based on measurement error? Given what we know about changes in prices and consumption since our official measures were introduced, are lower poverty thresholds justified? This study concludes that price and consumption changes over the last two decades should make poverty thresholds higher today than they are under the official definition -- not lower, as under the Census Bureau's new estimates. Using this approach, measured poverty rates would be higher today as well.

While the changes implemented by Census are reasonable, they address only a small part of the relevant economic change since the official poverty definition was introduced. If shifts in relative prices and in consumption patterns -- much larger sources of change over the past two decades -- were taken into account as well, the net impact on measured poverty rates would be different. Focusing on specific measurement problems that have the potential to lower poverty rates while ignoring equally important technical issues that would raise measured poverty produces misleading results. Indeed, the recent series of changes in poverty measurement introduced on a piecemeal basis by the Census Bureau highlight the need for a more

complete and coordinated overhaul of the methodology we use to calculate poverty statistics.

To outline the technical issues that such an overhaul should address, it is necessary first to understand the methods used to formulate and adjust our existing system of thresholds.

Background: The Official Poverty Measure

Our official poverty standard grew out of work by Mollie Orshansky for the Social Security Administration in the mid-1960's.[2] Orshansky's starting point was the "economy" food budget -- the cost of a minimally adequate diet for families of various sizes and types -- calculated by the Department of Agriculture. Using consumption data from the Department of Agriculture's 1955 Food Consumption Survey (the most recent then available), Orshansky calculated that a typical family spent about one-third of its total budget on food. She reasoned that if poor families could cut their food consumption from average levels to the level of the economy food budget, they could cut consumption of all other goods by the same proportion. To translate the economy food budget into minimum budgets for all goods and services, therefore, Orshansky simply multiplied the food budgets for each family type by a factor of three, and thereby obtained our first set of poverty thresholds. Because the underlying food budgets varied by the number, age, and sex of the family members, Orshansky's poverty thresholds also varied by these factors.[3]

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2. See for example Mollie Orshansky, "Children of the Poor," *Social Security Bulletin*, July 1963, and Mollie Orshansky, "Counting the Poor: Another Look at the Poverty Profile," *Social Security Bulletin*, January 1965.

3. Orshansky used a slightly higher multiplier for one and two person households to take account of the higher fixed costs that such households face. More recently, separate thresholds based on the sex of the household head and on farm/non-farm residence were also dropped, although lower thresholds for the elderly in one and two person households are still maintained.

Although Orshansky's thresholds were not a "scientifically" determined minimum cost of subsistence, their adjustment for family size and composition made them a real advance over other estimates then available, and they were widely adopted by other researchers. In 1969, a slightly modified version of the Orshansky scale was designated by the Bureau of the Budget as the official poverty measure, and poverty statistics have been produced annually starting with the 1967 income year. Although more recent consumption data had become available by 1969, no attempt was made to update Orshansky's estimates of "minimum needs" -- even though the Social Security Administration recommended such an update. Indeed, since Orshansky first developed her preliminary thresholds in 1963, the thresholds have been adjusted only for year to year changes in price levels (except for minor technical adjustments undertaken in 1981).

Criticisms of the Official Measure

Our official poverty thresholds have been criticized on a number of grounds. Two issues have raised considerable debate -- the exclusion of non-cash benefits from countable income, and the use of the Consumer Price Index (CPI) to adjust thresholds for price changes over time.

The debate over the treatment of non-cash benefits has, until recently, received the most attention. The Census definition of income includes all cash income (including that used to pay taxes) but excludes "in-kind" income such as food stamps and government health benefits -- or for that matter, employers' health and pension plan contributions. Census has developed alternative measures that take some taxes and in-kind benefits into account. These changes have not been officially adopted, however, largely because the treatment of in-kind benefits such as health care is still

very controversial.[4] Nevertheless, most analysts agree that it is not helpful to count non-fungible benefits as income for the purpose of determining income adequacy -- one of the most basic uses of a poverty measure. Even though the free medical care received by some poor families may be quite valuable, it cannot be used to pay the rent or buy food; and if the family cannot meet these basic needs, they should still be considered poor.[5]

For this reason, few experts would change the official poverty definition to include most non-cash benefits. Many would count relatively fungible benefits such as food stamps, and would deduct income and payroll taxes from income. In practice, these two changes would largely offset each other, and would have only a limited net impact on measured poverty rates.[6]

The debate over non-cash benefits has overshadowed some more fundamental criticisms. However, many analysts have questioned both the use of the Consumer Price Index (CPI) to adjust the thresholds and, more generally, the practice of adjusting the thresholds only for price changes. Census' new measure addresses the first of these concerns, but not the second.

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4. See U.S. Bureau of the Census, "Conference on the Measurement of Non-Cash Benefits: Proceedings," U.S. Government Printing Office, Washington, D.C. (1986), for a range of views on this issue.

5. In addition, spending on medical benefits has increased at least partly because of rising costs, making the actual value of this benefit hard to evaluate. For example, despite rapid increases in both public and private health insurance coverage over the 1970's, families spent an increasing share of their budgets on out-of-pocket medical costs, as Table 1 demonstrates.

6. Different specific families would of course be counted as poor under an income definition including noncash benefits and excluding taxes than under the official definition, however.

Adjusting Poverty Thresholds for Change Over Time

Why adjust our poverty thresholds at all? The simplest answer is that prices change. An amount of money that covered basic needs in 1967 bought far less twenty years later. If poverty is a state in which resources do not meet the most basic needs, our measure of those needs -- the poverty threshold -- must be adjusted for year-to-year changes in their costs.

Adjusting thresholds for changes in prices. The Census Bureau uses the Consumer Price Index for Urban Consumers, known as the CPI-U, to adjust the poverty thresholds.[7] Until 1983, in the view of many analysts, the CPI-U gave disproportionate weight to changes in the costs of purchasing a new home -- considering that only a small fraction of households buy homes at any given time, and that increases in home prices benefit sellers at the same time that they burden buyers. When housing prices and interest rates rose rapidly in the late 1970's, the CPI-U overstated the actual increase in the general level of prices experienced by urban consumers as a group.

In 1983, the procedure used to estimate housing costs was changed. Estimates for owner-occupied homes were based on changes in the costs of renting similar homes, rather than on changes in home prices. The Bureau of Labor Statistics did not revise its official CPI-U for earlier years, but produced an "experimental" CPI-X1, consistent with the revised CPI-U, which estimates prices changes over the years 1967 through 1982. This index rises more slowly than the CPI-U, although the divergence between the two series is greatest after 1977.

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7. Before 1978 adjustments were based on the CPI-W, which measured price changes affecting urban wage earners rather than all urban consumers.

By 1983, the price level as measured by the CPI-X1 was about 9 percent below the CPI-U. If poverty thresholds had been linked to this index rather than to the CPI-U, therefore, they would also have been 9 percent below the official measure. The alternative poverty calculations just introduced by the Census Bureau use these thresholds.

This change is not unreasonable, particularly on an experimental basis; the current CPI-U is a mix of two different measurement methods, and it probably does overstate price rises during the 1977-1982 period. However, focusing only on the characteristics of the price index misses a much larger problem: After 25 years of indexing for price changes alone, with no adjustments for changes in consumption patterns or in general standards of living, our current poverty thresholds no longer realistically estimate "minimum needs."

Problems with a price-based adjustment. Our official poverty thresholds are based on estimates of the cost of a minimally adequate market basket of goods in the early 1960s -- based in turn on consumption data collected in 1955. Consumption patterns have since changed dramatically. Some goods commonly owned today did not even exist in 1955, and others were relatively rare. Most families with children could count on the services of a full-time home-maker in 1955, and many fewer had only one parent. Many of the poor, especially in rural areas, had no plumbing -- a rarity today.

So prices are not the only things, or even the most important things, that change over time. People's incomes and family structures change, and so do the goods and services that they choose to consume. All of these changes contribute to changes in family needs, especially if considered over a period as long as 35 years

-- and that is, after all, the amount of time that has passed since the collection of the data on which today's poverty thresholds are based.

Over the long run, incomes tend to rise faster than prices, and so people can consume more goods and services, at least on the average. If poverty thresholds are adjusted only for prices, they will fall farther behind average standards of living. Also, any given "market basket" of necessary goods will eventually become outdated, as changes in family structure and consumption occur among low-income families and in the general population.

As a result, indexing poverty thresholds for price change alone is not realistic over very long periods. This study considers two alternative methods of updating poverty thresholds -- linking them to changes in incomes rather than prices, and re-estimating them to account for shifting patterns of consumption.

Adjusting for changes in relative incomes. Many analysts have argued that poverty is fundamentally a relative concept -- as standards of living rise, our concepts of what is "necessary" change also. If we had constructed a "market basket" of necessary goods a century ago, for example, we would hardly have included electricity or indoor plumbing; but few would argue that these are not needed today.

Indeed, writing more than 200 years ago, Adam Smith defined necessities as those commodities that "the custom of the country renders it indecent for creditable people, even of the lowest order, to be without."[8] Over time, "the custom of the country" is bound to change, especially if incomes in general rise. For that reason,

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8. Adam Smith, *The Wealth of Nations*, Everyman's Library, London, 1776, Volume 2, p. 691.

many analysts would adjust thresholds to changes in average (or median) incomes, rather than prices.[9]

Such poverty measures are generally referred to as relative, because they consider a family's relative economic status -- how far their income is from the median of all families -- instead of some absolute measure of need.

Opponents of a relative standard argue that it is too much of a moving target, and is not closely linked to real economic well-being. Under such a standard, for example, general increases in real income would increase poverty rates if the incomes of the poor increased less than those of other families -- so such a standard could be more a measure of the income distribution than of the economic well-being of the poor. Because many economists advocate such a measure as closer to the popular conception of poverty, however, a relative income standard has been included in this study.

Adjusting for changes in the consumption of "necessary" goods. A more direct approach to adjusting for changes in consumption patterns is to re-estimate the market basket of "minimum needs" at regular intervals -- for example, every decade. Over the very long run, perceived consumption needs do change; an estimate of housing needs based on the housing available to low-income families in 1890, for example, even if adjusted for price changes, would be meaningless if applied to today's housing market.

Not only do goods and services change over the long run, but so do the social and economic conditions that define "need." These changes include not only general increases in standards of living, but also more specific changes. Even twenty-five

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9. See for example Victor Fuchs, "Redefining Poverty and Redistributing Income," *The Public Interest*, No. 8, pp 88-95 (1967) or Lee Rainwater, "Persistent and Transitory Poverty: A New Look," Working Paper No. 70 (1981), Joint Center for Urban Studies, MIT and Harvard University.

years ago, for example, few mothers of young children worked outside the home, and few families paid for child care. Today, however, child care costs consume a large share of the budgets of many low-income families who no longer have a parent at home. Similarly, because more families now have two earners, work expenses such as commuting costs and taxes take a bigger share of total earnings.

Over a period of decades, the relative share of family budgets dedicated to different goods and services will also change. To the extent that such changes reflect changing tastes, they are not necessarily of concern. To the extent that they are induced by changes in prices, however -- and especially, by changes in the prices of basic necessities -- such shifts should be taken into account in defining the market basket of basic needs that underlies the definition of poverty. Changing consumption weights in the CPI cannot adequately capture these changes, because the CPI focuses on changes in all prices rather than on shifts affecting a "minimally adequate" market basket.

Finally, budget shares may change for other reasons. The proportion of family budgets spent on food, for example, tends to decline as income increases, because there is a practical limit on the amount that a family can spend on food. Over time, therefore, as the general standard of living in a society rises, the average proportion of the budget spent on food will decline -- particularly if its relative price does not rise.

As Table 1 illustrates, the share of food in the budget of the average consumer has fallen considerably since the mid-1950's.[10] To some extent this decline may have

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10. In order to allow for consistent comparisons of the budget shares of goods other than food, Table 1 includes consumption data from the 1952-53 Consumer Expenditure Survey rather than from the 1955 Food Consumption Survey used by Orshansky to construct her original thresholds. As the table illustrates, however, the share of food found in the 1952-53 survey is very close to the one-third estimate used by Orshansky.

TABLE 1. BUDGET SHARES GOING TO FOOD, HOUSING, AND MEDICAL CARE, BASED ON CONSUMER EXPENDITURE DATA FROM FOUR SURVEYS

	Percentage of the Average Consumer's Budget Spent On:		
	Food	Housing	Medical Care
Survey Date:			
1952-53	32.2	33.5	4.8
1960-61	25.2	34.9	5.7
1972-73	20.4	39.8	4.2
1982-84	17.7	42.3	6.0

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor. Based on Consumer Expenditure Survey for the dates shown. These percentages represent the consumption weights for the specified categories as derived for use in the CPI-U.

resulted from rising standards of living -- particularly during the 1950's and early 1960's. Between the survey of the early 1960's and the 1982-84 survey, however, virtually all of the decline in the share of budgets going to food was offset by increases in the share going to housing.[11] In other words, even though today's consumers are spending less on food than they did twenty or thirty years ago, they are not necessarily better off, because they must now spend a higher proportion of their incomes on other "necessary" goods such as housing.

Because housing is a necessary good, people cannot easily reduce their consumption as its price rises, and must instead cut other items in their budgets. Because the poor already spend a larger fraction of their total budgets than do other families on necessary goods, and especially housing, increases in housing costs force even greater cutbacks in non-housing consumption for the poor than they do for other families.

As Table 2 illustrates, the majority of poor households spend more than half their total incomes on housing alone. Rental price increases, in particular, have hurt the poor -- between 1982 and 1987, for example, the cost of rental housing rose more than 30 percent, while all prices rose less than 18 percent. For poor renters (about three-fifths of all poor households, containing about three-fourths of all poor persons), the median proportion of income spent on housing was 65 percent in 1985. According to the 1982-1984 Consumer Expenditure Survey, low-income families -- defined in that survey as those in the bottom 20 percent of the income distribution -- also spend an average of just over 20 percent of their incomes on food.[12]

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11. The budget shares shown for 1982-1984 are derived from the consumption weights for the CPI-U rather than the CPI-X1. Even if the alternative weights were used, however, the budget share for housing would be over 40 percent.

12. In 1982-84 about 15 percent of the population was poor, under the official definition, so the bottom 20 percent of the distribution actually contained some families that were not officially poor. Presumably the share of budgets going to food would be even higher if estimated for those actually below the poverty line alone.

TABLE 2. HOUSING COSTS AS A SHARE OF INCOME FOR POOR RENTERS AND HOME-OWNERS

I. Proportion of Poor Households Spending Specified Shares of Income on Housing in 1985:

	More than 30 Percent	More than 50 Percent	More than 70 Percent	Median Share Spent on Housing (as a percent of income)
Poor Home-Owners	73.2	46.2	30.6	47%
Poor Renters	84.7	63.1	44.6	65%
Total, All Poor Households	80.1	56.3	39.0	

II. Change in the Proportion of the Poor Spending Specified Shares of Income on Housing, 1978-1985:

	35 Percent or More Spent on Housing:		60 Percent or More Spent on Housing:	
	1978	1985	1978	1985
Poor Home-Owners	55.1	65.3	30.6	38.1
Poor Renters	72.0	79.3	44.0	54.6

SOURCE: Data from the American Housing Survey (1985) and from the Annual Housing Survey for 1978, as reported in Leonard, P.A., C.N. Dolbearn, and E.B. Lazere, "A Place to Call Home," Center on Budget and Policy Priorities and Low Income Housing Information Service (April 1989), pp. 1-6.

Thus, the median poor family spent more than 85 percent of its total budget on food and housing. This would leave less than 15 percent of the budget, on average, to cover transportation, child care, Social Security and income taxes, and other necessities such as clothing.

Given the increases in the costs of basic necessities such as housing, therefore, some adjustment of our poverty thresholds seems appropriate. One approach would be to update our current thresholds periodically, using the same general methodology as was used to construct them originally, but re-estimating the "multiplier" for the food-needs standard based on new data on the share of food in family budgets. Under this approach, thresholds would increase in real terms as living standards -- and the costs of the non-food part of the budget -- rose over time. Indeed, Orshansky advocated regular revisions in her estimated "multiplier" to take account of such shifts, instead of the price indexing system adopted in 1969.

Poverty Thresholds Under Alternative Adjustments

This study considers four different methods of adjusting poverty thresholds for change over time. These are:

1. The official method: indexing thresholds by changes in the CPI-U, to account for price increases only.

2. The CPI-X1 method: indexing thresholds by the revised "experimental" CPI, which adjusts for the over-estimation of housing price increases in the CPI-U.

3. The "relative income" method: indexing thresholds by year-to-year changes in median family income.

4. The "updated multiplier" method: recomputing thresholds using the original method, but re-estimating the "multiplier" periodically using new data on food prices and consumption.

Details on the calculation of the first two sets of thresholds are available in the materials released by the Census Bureau. The third set is based on the official thresholds of 1967, which have been increased each year by the same percentage as the rise in median family income.

The fourth set of thresholds has been developed by re-estimating the "multiplier" for the food share of family budgets based on more recent data, and then multiplying this amount times the Department of Agriculture's lowest cost food budgets (the Economy Food Plan until 1975, and the Thrifty Food Plan in later years).[13] Food share data are derived from the Consumer Expenditure Survey, and the hypothetical poverty lines have been updated in the same years in which the consumption weights for the CPI were revised using these data.

It should be noted that none of these methods is an ideal way to measure poverty, or even to update the thresholds over time. The problems with simple price indexing over long periods and with a strictly relative measure of poverty have been discussed above.

The "updated multiplier" approach is an improvement over long-term price indexing, in that it does adjust as consumption patterns change over time. Nevertheless, it too is a relatively crude approach, in that it considers only two goods -- food and "everything else." Orshansky adopted this methodology in 1963 because she did not have the data to construct a more sophisticated measure. Today, however, we have the resources to develop a better measure of the consumption needs of the low-income population. This ideal approach would require new

13. In fact, we have used the Thrifty Food Plan amounts that form the basis for setting food stamp maximum allotment levels at the start of each year, rather than the average monthly value of the TFP for the year as a whole. Since updates in food stamp benefits lag somewhat behind adjustments to the TFP, this represents a conservative estimate of actual food costs.

detailed consumption studies, however, and until such studies are carried out we can only use rough estimates.

Given the changes in consumption over the past three decades, however, the "updated multiplier" thresholds provide a better guide to the needs of today's low-income population than do thresholds based on simple price indexing. Because the official thresholds have never been re-estimated to account for changes in the consumption patterns of low-income families, they no longer provide a meaningful estimate of a minimally adequate income level. A switch to an even lower set of thresholds, like those indexed by the CPI-X1, only worsens this problem.

Table 3, which shows poverty thresholds for a typical low-income family, illustrates the very low cutoffs derived using price indexing alone as the basis for adjustment.[14] For a three-person family -- for example, a mother and two children -- the official threshold would count as poor only those with incomes of $9056 or less in 1987. This income level would be achieved by a woman working full time at a wage of about $4.50 per hour, for example. To stay within the Department of Housing and Urban Development (HUD) "housing affordability" guidelines, such a family could spend only 30 percent of its income -- or about $226 per month -- on rent, including utilities. This is clearly an unrealistically low level for most of our major cities, where the majority of the poor live.

Even if they found such an apartment, however, the family would have only $529 per month to meet all other expenses. If the mother spent only $50 each week on child care for the two children together (again, unrealistically low if the children

14. The median family size for households in poverty in 1987 was 3 persons; the average was 3.1 persons.

TABLE 3. POVERTY THRESHOLDS UNDER ALTERNATIVE METHODS OF ADJUSTMENT, SELECTED DATES 1979-1987

	Official Threshold	CPI-X_1 Threshold	"Relative Income" Threshold	"Updated Multiplier" Threshold
	Dollar Value of Threshold for an Average-Sized Low-Income Family (Three Persons)			
1979	5,784	5,414	6,591	8,324
1982	7,693	6,998	7,860	10,692
1984	8,277	7,532	8,854	11,586
1987	9,056	8,237	10,317	14,308

SOURCE: Calculated by the author using income and price data reported in R. Williams, "Trends in Family Incomes 1970-86," Congressional Budget Office (1988), Tables B1-B4, and budget share data shown in Table 1 of this paper. Indexing assumed to start in 1967. For details on calculation of the "updated multiplier" thresholds, see text.

are below school age), Social Security taxes accounted for $50 more per month,[15] and the family held to the Department of Agriculture (USDA) Thrifty Food Plan, which called for food spending of about $250 per month on average for a family of three in 1987,[16] there would be about $30 per month left to pay for clothing, medical care, and all other needs -- including transportation to get to work.

Unrealistic as this budget is, the budget implied by the CPI-X1 thresholds is even lower. At that income level, our hypothetical full-time worker -- in this case, earning about $4.10 per hour -- would have $206 per month to spend on rent, according to the HUD guidelines. Even if she managed to find housing at that price, her total income after rent, child care expenses and taxes would be only about $200 per month -- less than the USDA Thrifty Food Plan.

Both the workers in the examples above would potentially be eligible for food stamps -- the first family could qualify for a benefit of about $150 per month, the second about $175. (Of course, if the families applied for and received these benefits, they would again have their incomes raised over the poverty thresholds under any income definition that counted even fungible in-kind benefits.) After four months of work, neither family would qualify for a cash welfare payment in 47 of the 50 states, and Alaska is the only state in which they could qualify for more than $50 per month in welfare. And if they did not receive welfare these families also generally would not qualify for the Medicaid program. Unless the mother's employer provided free health insurance coverage, they would have to pay for medical care out of pocket.

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15. The earned income tax credit would approximately offset the payroll tax at the end of the year.

16. Estimate provided by the Congressional Research Service. Represents average monthly Thrifty Food Plan values over calendar year 1987 as a whole.

The other two thresholds are somewhat more realistic, but under even the highest of the four, the updated-multiplier threshold, the hypothetical family would have only about $358 per month to spend on rent, and would have an income equal to only about 46 percent of today's median. The relative-income threshold is somewhat lower, partly because it is based on changes in median incomes unadjusted for changes in family size.

Impacts of Alternative Thresholds on Measured Poverty Rates

These different poverty thresholds imply very different poverty rates, as Tables 4 and 5 show. In 1987, for example, the official poverty rate was 13.5 percent for the population as a whole--that is, 13.5 percent of Americans were in families with incomes below this standard. The comparable poverty rate estimate for the CPI-X1 based thresholds was 12.0 percent.

As discussed above, however, the thresholds on which these estimates are based are unrealistically low. Using the revised thresholds developed for this study, poverty rates were much higher. Under the relative-income-based measure, for example, about 16 percent of the population would have been in poverty in 1987. This could be seen as a conservative estimate, because this measure does not adjust for changing family size or for the changing consumption needs of the poor -- especially for the dramatic increases in their housing costs and work-related expenses over the past two decades.

The highest poverty rates are seen under the "updated-multiplier" thresholds. Under these thresholds, which are calculated in exactly the same way as the original poverty thresholds constructed by Mollie Orshansky in 1963, 24 percent of our population would be counted as poor.

TABLE 4. POVERTY RATES FOR ALL PERSONS UNDER ALTERNATIVE THRESHOLDS, 1979-1987

	Official Threshold	CPI-X_1 Threshold	"Relative Income" Threshold	"Updated Multiplier" Threshold
1982	15.0	13.2	15.3	23.2
1984	14.4	12.6	15.9	22.4
1984	13.5	12.0	16.1	24.1

SOURCE: Calculated from the Current Population Survey for years shown.

TABLE 5. POVERTY RATES FOR CHILDREN, THE ELDERLY, AND PERSONS IN FEMALE-HEADED FAMILIES UNDER ALTERNATIVE THRESHOLDS, 1979-1987

For Persons	Official Threshold	CPI-X_1 Threshold	"Relative Income" Threshold	"Updated Multiplier" Threshold
Age 18 or Under:				
1982	21.9	19.9	22.2	31.3
1984	21.5	19.3	23.2	30.5
1987	20.6	18.8	23.5	32.6
Age 65 or Over:				
1982	14.6	11.5	15.1	28.6
1984	12.4	9.5	14.8	26.4
1987	12.2	9.6	16.9	29.7
In Female Headed Families:				
1982	36.2	33.0	36.8	48.9
1984	34.0	30.7	36.4	46.9
1987	33.6	30.7	38.2	49.8

SOURCE: Calculated from the Current Population Survey for years shown.

Poverty rates for children and the elderly. The patterns of poverty seen across the population as a whole are repeated for specific subgroups such as children and the elderly. One American child in five is in poverty under the official measure, even with the low level of these thresholds. Under the updated-multiplier thresholds, however, this proportion rises to almost one in three. Even the official level is comparable to the poverty rates of 1965; if we recalculated the poverty multiplier now using the same methodology as in 1965, our poverty rates for children would be one and a half times those of that year.

Poverty rates for the elderly, on the other hand, have improved significantly because of the increased coverage and generosity of Social Security benefits. Because so many elderly have incomes just above our official poverty thresholds, however, poverty rates for the elderly are particularly sensitive to the exact location of the line. Although the elderly appear less likely to be poor than the general population under the two price-indexed thresholds, for example, their poverty rates are higher than those for the population as a whole under the relative-income and the updated-multiplier thresholds.

Trends in poverty rates over time. The trend in poverty rates over time would also differ considerably under price-indexed adjustments compared to others that took changing incomes and consumption patterns into account. Under either price-indexed threshold, poverty rates appear to have peaked in the 1982-83 recession, and to have come down steadily since. Under the official thresholds they are still high by historic standards, but the trend appears to be in the right direction.

Under the relative-income threshold and the updated-multiplier threshold, however, the figures are very different. Under both of these thresholds poverty rates rise through the decade of the 1980's, and are higher now than they were

during the 1982 recession. In relative terms, in other words, the poor are now actually worse off than they were during the recession. The real income growth that has raised median incomes has had very little effect on those near the bottom of the income scale; and the poor are falling behind if their resources are compared to their consumption needs.

Not only are the poverty rates under the updated-multiplier thresholds high relative to the late 1970's, they are high even by the standards of the early 1960's. Using her methodology to compute estimates for 1960, for example, Orshansky found a poverty rate of about 22 percent, while her estimate for 1963 was about 18.5 percent. The renewed high poverty rates in the 1980's under this approach, though admittedly only a rough estimate of today's actual minimum consumption needs, suggest that there has been a substantial erosion of the progress made against poverty over the previous 20 years.

APPENDIX. ALTERNATIVE POVERTY THRESHOLDS RELATIVE TO THE OFFICIAL THRESHOLD SINCE 1960

Differences between the poverty thresholds examined in this study have grown over time--all of these thresholds were derived from the same starting point, Orshansky's thresholds of the early 1960's. The appendix table shows each of the alternative thresholds as a proportion of the official threshold over a series of years. The CPI-X1-indexed poverty line has been equal to about 91 percent of the official threshold since 1982, for example. Most of the decline in this threshold relative to the official threshold occurred after 1977, when it was equal to 96 percent of the official threshold.

The "relative income" threshold, on the other hand, rose relative to the official threshold during the 1960's, reaching a level of about 12 percent above the official level in 1972. It stayed near this level over the decade of the 1970's as a whole, but fell to just 2 percent over the official threshold during the recession of 1982, when median income fell in real terms. This threshold has again risen relative to the official threshold since 1982, reaching the same relative level in 1987 that it held in 1979.

Finally, the "updated multiplier" threshold has also fluctuated over time as a proportion of the official threshold. Because the official thresholds were not updated for changes in the multiplier when they were first adopted, and because the share of food in the budget fell considerably over the 1950's and 1960's as a whole, this threshold would actually have been 27 percent higher than the official threshold as far back as 1967. (Indeed, if we had started indexing the "relative income" threshold in 1960 rather than 1967 it too would have been quite a bit over the

APPENDIX TABLE. ALTERNATIVE POVERTY THRESHOLDS AS A PROPORTION OF THE OFFICIAL THRESHOLD, 1960-1987

	Official Threshold	CPI-X_1 Threshold	"Relative Income" Threshold	"Updated Multiplier" Threshold
1960	1.0	1.0	N/A	1.0
1967	1.0	1.0	1.0	1.27
1972	1.0	.97	1.12	1.20
1977	1.0	.96	1.11	1.28
1979	1.0	.94	1.14	1.44
1982	1.0	.91	1.02	1.39
1984	1.0	.91	1.07	1.41
1987	1.0	.91	1.14	1.58

SOURCE: Calculated by the author using income and price data reported in R. Williams, "Trends in Family Incomes 1970-86," Congressional Budget Office (1988), Tables B1-B4, and budget share data shown in Table 1 of this paper. Indexing assumed to start in 1967. For details on calculation of the "updated multiplier" thresholds, see text.

official thresholds by 1967, since our strongest income growth also occurred in the 1960's.)

The updated multiplier threshold would have fallen relative to the official threshold as relative food prices fell in the late 1960's and early 1970's, but would have regained its 1967 level by 1977. Because a further adjustment to the multiplier was assumed to occur in 1978 (when the CPI consumption weights were adjusted), the threshold would have jumped relative to the official threshold in 1979. It would have remained near 140 percent of the official threshold until the most recent multiplier adjustment in 1987, which brought it to 158 percent of the official poverty standard.